

Attorney Docket No.: **SIT-0106**
Inventors: **Esche and Nazalewicz**
Serial No.: **09/954,994**
Filing Date: **September 19, 2001**
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This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A device for adaptive vibration attenuation comprising a passive isolator with a non-linear force-deflection characteristic and an operating point, wherein the passive isolator comprises a pneumatic actuator which varies the operating point of said isolator along said force-deflection characteristic wherein the pneumatic actuator has disposed along the central longitudinal axis a non-linear spring, at least one upper pressure chamber and one lower pressure chamber independent of the upper pressure chamber, wherein the upper chamber and lower chamber are on either side of the non-linear spring, wherein air pressure in said at least one upper pressure chamber can be externally controlled and wherein the natural frequency of the device is regulated by applying pressure to the upper pressure chamber or the lower pressure chamber.

Claim 2 (currently amended): A device for adaptive vibration attenuation comprising a passive isolator with a non-linear force-deflection characteristic wherein the passive isolator comprises a mechanical actuator which varies an operating point along said force-deflection characteristic and is comprised of a coiled spring, a load supporting rod disposed through the center of the coiled spring, a non-linear spring and a means for externally controlling a preload to said coiled spring, wherein

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the means for externally controlling the preload to said coiled spring is not in direct contact with the load supporting rod, whereby as the coiled spring force is varied, the load supporting rod transfers pressure to the non-linear spring.